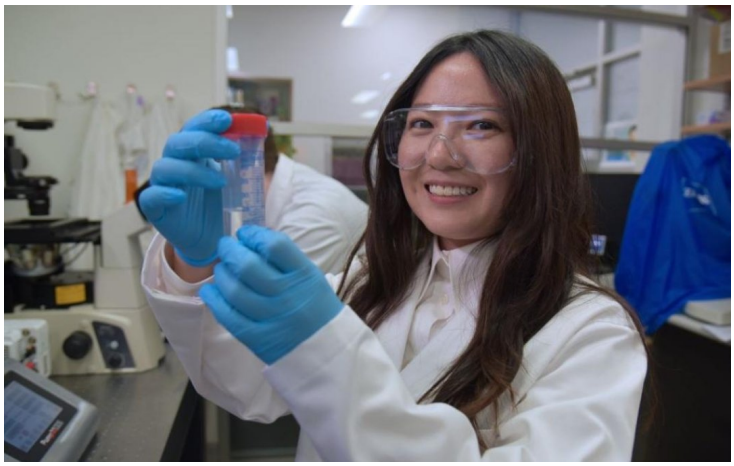
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Low-cost tool by Australia could detect leukemia in patient's saliva

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Recognised with a UQ Foundation Research Excellence Award



Engineering researchers at the University of Queensland (UQ), in Australia, are developing a low-cost tool that could diagnose diseases like leukemia from a simple saliva sample.

The project, led by Dr Dan Yuan from UQ's School of Mechanical and Mining Engineering, aims to deliver a portable benchtop device that replaces blood tests for many diseases.

Dr Yuan said she wanted the device to be as simple as possible to help remove strain on hospital system.

"Saliva testing is fast, painless and suitable for at-home, large-scale screening as we have seen with COVID-19 and flu kits. The aim is to develop a test that avoids the need to come into hospital for a time-intensive check. The non-invasive nature of saliva-based diagnostics will improve patient comfort and compliance, particularly in paediatric and routine screening populations. This could help enable early detection of diseases such as cancer, reducing mortality rates and healthcare costs", said Dr Yuan.

Dr Yuan said the tool she is designing currently requires an external pump and microscopic high-speed camera to operate and observe as she intends. Eventually, her hope is the device will be small and portable.